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REMARKS

Claims 1-6, 8-13, 16-21 and 23 remain pending in this application. Claims 1 and 4 have been amended. Claims 14, 15, 22 and 24-28 have been withdrawn. Claim 7 has been cancelled. No new matter has been added. In view of the above amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

Claims 1-6 and 8-13 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter. Examiner states that the limitation "the bolus" in line 15 of claim 1 has insufficient antecedent basis for this limitation. 1/17/07 *Office Action*, p. 3.

It is respectfully submitted that amended claim 1 fully complies with § 112. Because claims 2-6 and 8-13 depend from and therefore include all of the limitations of claim 1, it is respectfully submitted that these claims also comply with § 112.

Claims 1-6 and 8-12 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent Application Publication No. 2005/0182354 to Quinn ("Quinn 2005").

Claim 1 recites a distal tip for a catheter comprising "first and second lumens extending therethrough, wherein in an operative configuration, the first and second lumens are coupled to first and second lumens of a dual lumen catheter" in combination with "a first opening fluidly connected to the first lumen for inflow of fluid from a body lumen into which the distal tip is inserted in a normal mode of operation and for outflow of fluid thereinto in a reverse mode of operation" and "a second opening fluidly connected to the second lumen, the second opening being disposed distally from the first opening and separated therefrom by a selected stagger distance for outflow of fluid therefrom when the catheter is in the normal mode of operation and for inflow of fluid from the body lumen in a reverse mode of operation" along with "a contoured flow deflection element directing, in the reverse mode of operation, outflow from the first opening away from the second opening" and "a contoured outlet portion of the second opening reducing an outflow velocity therefrom in the normal mode of operation" and "*side walls extending between the first opening and the contoured flow deflection element.*"

It is respectfully submitted that this § 102(e) rejection is improper because the Quinn 2005 figures that the Examiner references (Fig. 24 and 25, 136) to show the "*side walls*

extending between the first opening and the contoured flow deflection element" recited in claim 1 were added after the filing date of the present application. Specifically, the provisional application to which Quinn 2005 claims priority, does not show or suggest *"side walls extending between the first opening and the contoured flow deflection element,"* as recited in claim 1. Therefore, it is respectfully submitted that the figures relied on are entitled only to the November 5, 2004 filing date of the parent application PCT/US04/37101. Because this date is after the February 12, 2004 filing date of this application, it is respectfully submitted that these figures are not prior art to the present application and this rejection should be withdrawn. Because claims 2-6 and 8-12 depend from and therefore include all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Quinn 2005 in view of U.S. Patent No. 5,171,216 to Dasse et al. ("Dasse"). The Examiner states that Quinn discloses the device substantially as claimed, but does not expressly disclose the stagger distance between the openings is 1 and 1.5 cm. The Examiner cites Dasse to cure the above deficiency.

It is respectfully submitted that Dasse does not cure the above-described deficiencies of Quinn 2005 (i.e., that the portions of Quinn relied on by the Examiner to show the "side walls" are not prior art). As shown in Fig. 2B of Dasse, infusion and withdrawal ports 14 and 16 are simply formed in and flush with a side surface of a multi-lumen tube 2. Thus, there are no side extensions or other structures for preventing outflow from either of the ports 14, 16 from spilling radially around the tube 2. Thus, it is respectfully submitted that Dasse neither discloses nor suggests *"side walls extending between the first opening and the contoured flow deflection element,"* as recited in claim 1. Therefore, because claim 13 depends from and includes all of the limitations of claim 1, it is respectfully submitted that this claim is allowable for the same reasons.

Claims 16-21 and 23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Quinn 2005, in view of U.S. Patent No. 5,451,216 to Quinn ("Quinn '216"). The Examiner stated, in support of the rejection that Quinn 2005 shows the invention substantially as claimed including the side walls except for the attachment to lumens as recited.

It is respectfully submitted that Quinn 2005 in view of Quinn '216 does not show the invention substantially as claimed (specifically the side walls) as any portions of Quinn 2005 purporting to show such side walls are not prior art.

Specifically, claim 16 recites a tip for a catheter comprising “a contoured bolus defining at least a portion of an inlet and an outlet of the distal tip so that, when coupled to the catheter, the inlet is coupled to a first one of the catheters lumens and the outlet is coupled to a second one of the catheters lumens, and a flow deflector directing fluids exiting the inlet in a first mode away from the outlet and *side walls extending between the inlet and the bolus.*”

It is respectfully submitted that Quinn ‘216 fails to cure this defect. Quinn ‘216 purports to show a bolus 20 with a tubular shaped body 21 for attachment to a single lumen catheter 10 and has only a single opening at the end. *Quinn ‘216*, col. 3, ll. 31-33. Thus Quinn ‘216 neither shows nor describes a structure forming a portion of an inlet and an outlet of the tip as the bolus is recited. Nor does Quinn ‘216 show any side walls extending between an inlet and such a bolus.

Therefore, it is respectfully submitted that claim 16 is not rendered obvious by Quinn 2005 in view of Quinn ‘216 and is allowable. Because claims 17-21 and 23 depend from and therefore include all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable.

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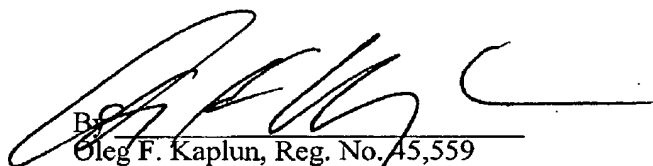
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CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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